

**REMARKS**

Claims 1 - 10 are pending in the present application. By this Amendment, the specification and figure 1 have been amended. No new matter has been added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated August 26, 2004.

**Objection to the Drawings:**

In item 1 of the Action, the Examiner objects to Fig. 1, since Fig. 1 includes two resistors, which do not include reference numerals and are not spoken of in the specification.

However, it is respectfully submitted that Fig. 1 has been amended such that the two resistors shown in Fig. 1 are now labeled as R1 and R2. In addition, page 8 of the specification has been amended to provide brief descriptions for resistor R1 and R2.

In item 2 of the Action, the Examiner objects to the drawings since reference numeral 220 recited on page 16 of the present specification is not illustrated in the drawings.

However, it appears that numeral 220 should actually be 120. Accordingly, pages 15 and 16 of the present specification have been amended to correct this informality.

As such, withdrawal of the objection to the drawings is respectfully requested.

**As to the Merits:**

As to the merits of this case, the Examiner sets forth the following rejections:

1) claims 1, 2, 3, 5, 6, 7 and 8 stand rejected under 35 USC §103(a) as being unptatentable over Muschallik (U. S. Patent No. 6,636,727) in view of Shiga (U.S. Patent No. 6,240,019);

2) claim 4 stands rejected under 35 USC §103(a) as being unptatentable over Muschallik in view of Shiga and Ogita (U.S. Patent No. 4,225,823); and

3) claims 9 and 10 stand rejected under 35 USC §103(a) as being unptatentable over Muschallik in view of Yanagibori (U.S. Patent No. 4,919,640) and Shiga.

Each of these rejections is respectfully traversed.

Independent claims 1 and 9 each call for a booster circuit coupled to the voltage controlled oscillator for boosting a source voltage to generate a boosted voltage in order to ensure the predetermined control voltage ... wherein the boosted voltage of the booster circuit is utilized as the predetermined write voltage.

For example, as shown in Fig. 1, a booster circuit 30 provides a boosted voltage (e.g., 15V), which is added to the voltage of the filtered average DC voltage signal from the low pass filter 28. In other words, the cathode of the varactor diode 21 is applied with a voltage which

varies in a range of “zero” to the boosted voltage” in accordance with the output voltage of the low-pass filter 28. As also shown in Fig. 1, the booster voltage of the booster circuit 30 is used as the predetermined write voltage for flash memory 100.

With regard to these claims features, the Examiner asserts that Muschallik discloses a charge pump (88) which reads on the claimed “booster circuit” coupled to the voltage controlled oscillator (45) for boosting source voltage to generate a boosted voltage in order to ensure the predetermined control voltage (see col. 7, line 51 –col. 8, line 2) where the source voltage would be obvious.<sup>1</sup>

However, it is respectfully submitted that the charge pump (88) disclosed by Muschallik is not a booster circuit. That is, according to Muschallik, “the phase comparator 83 is connected via a charging current line 87 to a charging pump 88. The phase comparator 83 together with the charge pump 88 forms a phase comparison circuit, whose gain can be adjusted as a function of the charging current produced by the charge pump 88. The strength of the charging current produced by the charge pump 88 is set through the use of a charge pump controller 89 via a control line 90. The charge pump 88 is furthermore connected via a line 91 to a PLL or loop filter 92.”<sup>2</sup>

That is, the charge pump 88 of Muschallik only generates a charge current in accordance with the control of the charge pump control circuit 89 in order to minimize the phase noise of the

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<sup>1</sup> Please see lines 21-24, page 4 of the Action.

<sup>2</sup> Please see lines 51-60, column 7 of Muschallik.

receiver and does not boost a power supply voltage to generate a boosted voltage (See column 10, lines 38-48 of Muschallik)

In other words, the charge pump 88 of Muschallik is not coupled to a voltage controlled oscillator and fails to provide a booster source voltage to generate a boosted voltage in order to ensure the predetermined control voltage, as called for in claim 1.

Further, clearly the charge pump 88 of Muschallik does not provide a boosted voltage, which is used as the predetermined write voltage for memory device 73. In other words, Muschallik also fails to disclose or fairly suggest the features of claim 1 concerning wherein the boosted voltage of the booster circuit is utilized as the predetermined write voltage.

Moreover, the secondary reference of Shiga fails to disclose the above-noted drawbacks and deficiencies of Muschallik.

In view of the aforementioned remarks, Applicants submit that the claims are in condition for allowance. Applicants request such action at an early date.

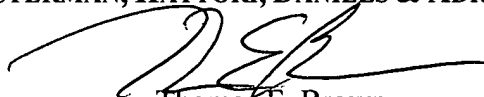
If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

Response under 37 C.F.R. §1.111  
Attorney Docket No. 011503  
Serial No. 09/991,749

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

**WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP**



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TEB/jl

Attachment: Replacement Drawing Sheet (Fig. 1)

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